

RUS is Committed to Improving Native Americans
Quality of Life
Statement before the Federal Communications Commission
by
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Mr. Chairman and members of the Commission, my name is Christopher A. McLean, I am the Deputy Administrator of the Rural Utilities Service. Thank you for inviting me to testify today.

The Rural Utilities Service (RUS) is a Rural Development Agency of the United States Department of Agriculture. We administer programs to help finance Water, Waste Water, Electric, Telecommunications, Distance Learning and Telemedicine projects in rural areas. We hold a \$42 billion loan portfolio of investments in rural infrastructure.

This year, our Telecommunications program is celebrating its 50th year making rural America part of the information age. In 1949, when President Truman signed the Rural Telephone Act into law, 39% of American farmers had telephone service. Today, Rural communities have some of the highest telephone penetration rates in America.

However, this generally positive picture of telecommunications service in rural areas is clouded by persistently low telephone penetration rates among the rural poor and in native American communities.

The RUS and its predecessor agency, the Rural Electrification Administration, have been dedicated to improving the quality of life in rural America for over 63 years. In tribal communities, which are generally rural, the RUS has had a long record of success in helping Native Americans bring quality water, electric and telecommunications services to their homes and businesses.

We have worked with companies and coops serving Native Americans since the earliest days of our telephone, electric and water programs. We also have longstanding relationships with tribal entities providing utility services. The Navajo nation, for example, has been an RUS electric borrower since 1961 and the Cheyenne River Sioux Tribe has been an RUS borrower since the 1970s.

Improving the quality of life for Native Americans is a priority for President Clinton, Vice President Gore, Secretary Glickman, and the RUS. As an example of that commitment, RUS has focused outreach efforts on tribal communities which has resulted, in the tripling of RUS investment in Native American water and waste water projects since President Clinton took office.

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In telecommunications, RUS is making significant investments in tribal communities. In recent years there has been growing interest among Native American communities in RUS programs.

Providing modern affordable telecommunications services to all American is the central focus of the Telecommunications Act of 1996. Low levels of service to Native Americans can not persist if we are to fulfill the vision of that landmark legislation. While my remarks will focus on key issues involved in establishing and operating a successful tribally-owned telecommunications company, I do not want to underemphasize the work of the 60 RUS non-tribal borrowers who serve Native American communities. They too are heroes in the RUS success story.

The Commission should also recognize the problems with Native American service are magnifications of problems with high-cost rural service throughout the Nation. These problems can not be solved without a predictable and sufficient universal service support system.

The RUS has made loans to five tribal entities: Tohono O'odham Utility Authority in Sells, Arizona; Gila River Telecommunications, Inc., in Chandler, Arizona; San Carlos Apache Telecommunications Utility, Inc. in San Carlos, Arizona; Fort Mojave Telecommunications, Inc., in Fort Mohave, Arizona; and, Cheyenne River Sioux Tribe Telephone Authority in Eagle Butte, South Dakota. These five entities currently serve 8,000 Native American subscribers. Additionally, another 60 RUS borrowers serve portions of reservations, providing service to approximately 27,000 Native Americans. This fiscal year, RUS anticipates loan applications from two tribal entities new to the RUS program - the Mescalero Tribal Authority in New Mexico and the Turtle Mountain Tribal Authority in North Dakota. We have also had detailed discussions with other tribal entities in California, Arizona, New Mexico, Colorado, and North Dakota concerning RUS financing for tribal telecommunications.

Additionally, the RUS Distance Learning and Telemedicine Loan and Grant Program has provided financial assistance totaling \$5.8 million in grants and \$247,000 loans for improved educational and medical services on reservations.

To ensure that the benefits of the RUS Telecommunications Program are made available to the largest number of Native Americans possible, we have made numerous presentations at American Indian workshops, seminars and conventions to discuss how tribal entities may participate in RUS programs. Our general field representatives visit with tribal authorities who are interested in improved telecommunications service and discuss ways to improve their service. Unfortunately, most reservations are served by telephone companies that do not borrow from RUS; therefore, significant new RUS financial involvement will likely come in the form of loans to newly-formed tribal telecommunications companies.

I am also pleased to announce today that the RUS has just agreed to participate in a summer intern program with students from Native American Tribal Colleges.

We are particularly proud that RUS involvement with tribal borrowers has resulted in substantial improvements in telecommunications-related services on reservations. At the 5 tribal entities detailed above, initial penetration rates for telephone service before RUS involvement averaged 28 percent. Those rates have risen to 78 percent today and we anticipate even higher penetration rates as several borrowers are still constructing facilities.

One fact is critically important -- forming a new telecommunications company in today's economy is a formidable task. Not only are there substantial financial hurdles to conquer, the industry, as a whole, is radically changing due to passage of the Telecommunications Act of 1996. Telecommunications companies today must be aware of current regulations addressing toll separations, access charges, plant accounting, plant unbundling, and universal service fund issues as well as the potential impact of deregulation on each of these issues and the possibility of competitive entry once significant funds have been invested. If a newly-formed company does not have this expertise readily available, it may have to rely on consultants to assist it in these areas. To be successful in any telecommunications enterprise, management must have the necessary financial and technical resources available, either through its own staff or through hired consultants.

RUS provides advice and assistance in formulating plans for designing and constructing telecommunications plant and the financial requirements for obtaining a loan from RUS. We do not, however, assist potential borrowers in the actual formation of telecommunications companies. There are a host of financial, legal and regulatory issues, that a tribal entity must investigate before making a decision to form a tribal telecommunications company.

I am pleased to share with the Commission the advice RUS gives to tribal entities interested in establishing a telecommunications company. Based upon our experience with rural telephony, we recommend three distinct areas that should be carefully considered: (1) the quality of the existing service; (2) the type of service to be provided; and (3) the availability of utility expertise, qualified management, and human and financial resources.

We urge tribal authorities to:

(1) Survey the Existing Service. In most cases, there will be some form of telecommunications service available on the reservation. Typically, service is limited to the more densely populated areas and the types of services available are limited. It will be necessary to negotiate with the existing telephone company to enter into a partnership or to purchase facilities if the tribal company's goal is to serve the reservation exclusively

and provide improved service. The community must also determine whether subscribership rates are related to a lack of infrastructure or related to other issues such as ability to afford service or even local customs.

Under our statute, the **rural/urban** make up of a service territory is critical to RUS basic telecommunications program financing. RUS cannot generally finance local exchange service in towns with populations exceeding 5,000 unless such service is incidental to providing service in a surrounding rural area. However, the 5000-person threshold is relevant only at the time of the initial RUS loan. Therefore, RUS may be able to finance service extensions in larger communities served by existing borrowers. The population criteria for RUS distance learning and telemedicine financing is also broader.

Another important factor to consider is a town's effect on reservation subscriber growth. Areas adjacent to large cities or suburban environments may spur bedroom communities, additional subscriber growth, and business and industrial growth on the reservation, especially if utility infrastructure is adequate.

(2) Determine the types of services to be provided. The Tribal Authority must address the level of service they want to provide their consumers. This decision is influenced by existing service as well as what is technically and economically feasible.

Ideally, a telecommunications company should strive to serve everyone that wants service. However, the cost of construction on sparsely populated reservations will be high. It may not be feasible to serve every home on the reservation, no matter what the cost, with the same infrastructure. The tribe should formulate policy on such matters because these decisions will influence the cost of construction.

Consider growth factors and the local economy. Before an entity can forecast revenues and expenses with any accuracy, it must forecast subscriber growth. Are there industry and business opportunities on the reservation? What is the unemployment rate? Can and will consumers pay their telephone bills and at what rate?

The tribal authority must: **Consider service needs.** What level of service will people want? Are there demands for internet access, wideband data service, video and cable TV, ISDN, and XDSL data services? Are there potential applications for distance learning and telemedicine on the reservation that may require advanced telecommunications services?

(3) Determine the availability of utility expertise, qualified management, and human and financial resources. Without a doubt, these issues are the most important contributors to successfully organizing and starting a telecommunications company.

It is essential that the new company have management with telecommunications experience. In today's environment, almost every decision made can have far-reaching

consequences on revenues and expenses. The Tribal Authority should seek experienced people outside the local area, if necessary. The Tribal Authority may also wish to consider a partnership with a private-sector telecommunications company. Two of the five RUS tribal borrowers did this. The tribe was, therefore, able to gain broad management experience and financial resources very quickly. This also provides an excellent training ground for tribal residents. Over time, local talent can be groomed to assume management duties and responsibilities. One of these two borrowers has since negotiated for the full ownership of the company by the Tribal Authority.

Independent operation is also critical. The telecommunications company should not utilize the financial resources of the tribe (except for startup equity and operating expenses discussed below) to operate nor should it be required to transfer its revenues to the tribal authority. Telecommunications service is extremely capital intensive and requires long-range planning. This cannot be successfully accomplished without assured revenue streams.

Start-up problems can not be underestimated. The initial 3 or 4 years of operations will be difficult. Large sums of money must be spent on telecommunications facilities before subscribers are connected and revenues begin to be realized. Unless waivers are approved, there will also be a 2-year delay in receiving Universal Service Fund revenues. The telecommunications company must have a source of operating funds for this period, either provided by the Tribal Authority or an outside lender. Most commercial lenders will require an infusion of equity, usually ranging from 10-25 percent.

Consider financing options. For rural telecommunications carriers, the most likely financing options are the Federal government (RUS) or the private sector lenders closely associated with RUS – the Rural Telephone Finance Corporation and CoBank. The Tribal Authority should consider the advantages and disadvantages associated with borrowing from each lender - interest rates, repayment terms, regulations - and select the one that best satisfies its needs.

Experienced Reliable Consultants are essential. It is virtually impossible to start a telecommunications company without some assistance from consultants: A consulting engineer to assist in system planning, design and construction supervision; a cost consultant for NECA, USF and tariff issues; and an attorney for loan and construction contract issues are typical of the experts whose services may be contracted to efficiently and effectively evaluate the possibility of establishing a new telecommunications company. The Tribal Authority should, however, be cautious on the amount of consulting work procured, as these costs can escalate quickly, especially if the authority decides not to pursue providing telecommunications services.

If a Tribal Authority is considering offering telecommunications services, RUS can assist by answering questions concerning system design, levels of service, and financial

eligibility for loans. We can also provide references for the best source of information - those tribes that have already successfully established such systems.

RUS will finance the costs to prepare an application package for our loans. Private sector lenders may also finance the cost of the feasibility studies necessary to form the company.

RUS CAN HELP

The RUS Telecommunications Loan Program and the Distance Learning and Telemedicine Loan and Grant Program can both assist tribal authorities in expanding service from existing carriers or establishing independent telecommunications companies. While we cannot participate in forming the Tribal Utility Commissions, we can be an active participant in designing, financing, and constructing the telecommunications plant necessary to provide service on the reservation.

RUS is not just another financing institution. Our comprehensive programs are designed to not only provide the funding for rural construction, but to insure quality service at reasonable rates to the widest practicable number of residents. Because of RUS oversight, our loan funds are expended only for the purposes intended, while ensuring that the highest levels of quality service are available to tribal consumers. No other private sector lender offers this advantage.

RUS financing offers additional benefits:

Interest Rates – The RUS loan programs offer hardship financing at 5 percent, treasury rate financing at the government's cost-of-money, and guaranteed financing at the cost-of-money plus 1/8 percent. Private sector rates are typically 1 to 3 percent higher and are negotiable.

Loan Term – The term of an RUS loan is based upon the estimated useful service life of the plant facilities, typically 20 to 22 years. The maximum term for most private sector loans is 15 years.

Area Coverage – RUS ensures that, to the extent practicable, all consumers within an exchange receive the same level of service without substantial differences in rates. Private lenders have no guidelines on this.

Construction Oversight – RUS provides oversight to ensure that construction is properly performed. We maintain specifications and standards to ensure the highest quality facilities and service. Similar oversight is not provided by private lenders.

Standards – RUS maintains standards for construction materials, construction methods,

plant design, and transmission quality. Private lenders do not prescribe such standards.

Vendor Assistance – RUS will intervene on behalf of our borrowers on vendor/contractor disputes and problems. Due to the size of our programs, we have established effective working relationships with outside manufacturers and vendors. Similar assistance is not provided by private lenders.

Technical Assistance - RUS can provide a broad range of technical assistance from the headquarters staff. We also have a field staff located throughout the country that can provide on-site assistance and oversight.

In the information age, the link between telecommunications and economic growth is obvious. Establishing a telecommunications entity is a very difficult task with no guarantee of success, however, when successful, the rewards can be several-fold: service usually improves, penetration rates increase, a wider range of services are offered, and with a sustainable universal service system, rates will be reasonable. The telecommunications entity will also be a source for jobs and training on the reservation and the improved infrastructure can promote additional economic development and growth.

It will, however, require the Tribal Authority to invest substantial monetary and human resources to get started, to fund feasibility studies, to participate in the decision-making process and to provide for an equity infusion.

The primary infrastructure necessary to establish a successful telecommunications company is a network of resources both human and financial that can be dedicated to the project. An effective, experienced management team and sufficient regulatory oversight by the Tribal Authority is necessary to ensure high-quality affordable service. Experienced management is critical since State Public Utilities Commissions does not regulate or provide oversight to utility services provided on Indian reservations.

Often the most efficient method of improving telecommunications service on reservations is to induce the Incumbent Local Exchange Carrier (ILEC) to provide better quality service on an area coverage basis. Since many reservations have very low penetration rates, the Tribal Authority must effectively negotiate with the ILEC to provide more comprehensive service. The Tribal Authority must be prepared to deal frankly with the reasons that have been given to justify less than adequate service:

- Concerns over the exercise of tribal sovereign authority;
- The difficulty incurred in obtaining right-of-way easements;
- Higher than average construction costs;
- Concern that high-cost subscribers may not pay their telephone bills on a timely basis.

Many of these fears can be allayed if the Tribal Authority becomes more active in establishing oversight on these issues and demonstrates a willingness to not encumber the ILEC's prudent business practices.

WIRELESS OPTIONS

Predominately Native American service areas present challenges for a wireline Local Exchange Carrier (LEC). Many of these areas have little or no telecommunications service now, and if there is service, it sometimes is not offered throughout the area because plant has not been extended into the rural parts of the service territory. A fairly high percentage of the residents have limited income, and many LECs who serve Native American areas charge Contributions In Aid To Construction (Aid to Construction) which acts as an impenetrable barrier to low-income households seeking service. Some Native American areas have rugged terrain, making construction of wireline plant expensive.

These circumstances suggest a different technological approach to serving Native American areas. Wireless local service is an evolving technology that should be considered. Wireless local loops can be built quickly so that low penetration rates could be remedied in a short time. The cost of a wireless local loop does not increase necessarily due to rugged terrain, although it does typically depend on line-of-sight wave propagation which limits its viability in mountainous areas. The LEC is less likely to apply crippling Aid to Construction charges to wireless because its cost per loop is constant for loop lengths within its unrepeated propagation limit, which is typically around 30 miles.

The potential advantages of wireless local loops for Native American service areas can be summarized as follows:

- Quick installation.
- Fixed investment within unrepeated propagation limits.
- Little permanent investment at and en route to customer premises that can be stranded upon service termination.

While wireless solutions offer hope, they have their limitations and are not a panacea. Wireless local loops have disadvantages also.

- Wireless local loop technologies use compression techniques and other design philosophies that limit modem transmission speeds. Current products assure modem transmission only up to 9.6 Kb/s. This is far below the current RUS standard for wireline capability of about 28.8 Kb/s. Extensive deployment of wireless local loops on Native American Reservations could create a society of "Information Have-Littles."

- Wireless local loops depend on house electrical power and cannot be network powered like wireline systems. In areas with low electric service penetration, like some Native American areas, wireless local loops cannot be used.
- While wireless local loops have fixed per loop costs, those costs are high. A close-in customer may cost the same as a far-out customer, but both cost at least \$5000, compared to the average cost-per customer in RUS of \$2833.
- When wireless local loop systems are deployed to serve fewer than their maximum capacity of customers, their cost per line goes up. For example, if a 196 line system is deployed to serve 25 rural customers, because of fixed costs the cost per line may exceed \$12,000.
- Spectrum costs are unknown.
- Spectrum availability is unknown.
- If spectrum is made available and plant investments are made accordingly, there is uncertainty whether the spectrum would remain available throughout the useful economic life of the equipment.
- There is a shortage of products to provide wireless local loops. In the early 1980's when Basic Exchange Telephone Radio Service wireless local loop equipment was reasonably adequately supported by spectrum allocations, RUS had four suppliers on its List of Materials. When the BETRS co-primary spectrum allocation was changed to a secondary allocation basis, suppliers started dropping out of the market. Today, only one, wireless local loop manufacturer is on the List.

The Federal Communications Commission (FCC) could encourage the wireless local loop by allocating affordable spectrum to LECs, particularly those serving rural areas. It would not be helpful, however, if the FCC targeted such allocations only to Native American service areas, because such a limited market would not entice manufacturers to make affordable wireless local loop products.

Connection Charges

High connections charges often known as contributions to construction are one of the major impediments to phone service. In general, the RUS borrowers commit to area wide service and are not permitted to charge contributions to construction. In areas unserved by RUS borrowers, connection charges stand between being connected to the information age or not.

I am also pleased to announce today that the RUS and the Rural Housing Service have signed a policy memorandum which makes telephone and electric connection fees an eligible use for the Rural Housing Service's §504 loan and grant program. While competition for §504 home improvement funds is fierce, this eligibility can help give more Americans access to the information superhighway, especially as State and federal authorities review the appropriateness of contributions to construction. I have attached a copy of that memorandum to my testimony.

The E-RATE & DLT

While the E-Rate has been a boon for rural America, it's value in tribal communities is even more profound. By providing discounted services to schools, libraries and rural health care providers, the E-rate ensures that rural Americans in general, and Native Americans in particular are part of the new information age. Tribal communities will benefit substantially from the E-rate. Virtually all the BIA K-12 schools have applied for the E-rate and should qualify for the highest discounts.

The E-rate will give tribal communities modern access to the information superhighway at their local schools, libraries and health care providers. Students will gain access to the knowledge of the ages and tribal members will gain access to quality medical services via telecommunications technologies. Tribal communities can also use this access to share their culture, knowledge and ideas with the world. Where there are such serious shortages of telecommunications services at home, community access through schools, libraries and health care providers is critical.

The Rural Utilities Service has had a preview of the great advantages of bringing telecommunications, education and health care together. Since 1993, we have administered a distance learning and telemedicine (DLT) loan and grant program. Over 20 of our DLT projects have served Native American communities. I can tell you, that this technology saves and changes lives.

One lesson we have learned in this field is that high monthly costs are a significant impediment to sustainable distance learning and telemedicine projects. The E-rate will help solve that problem.

In this fiscal year, we will make \$12.5 million available for DLT grants and \$150 million available for DLT loans. This program compliments the E-rate. It provides financing and grants for end-user equipment and infrastructure investments. We have just proposed a streamlining of our program and a new emphasis on loan financing. The RUS can immediately process a loan request and a funds availability announcement for the grant and loan/grant portions of the program are expected in late mid-May.

Distance Learning and Telemedicine projects can also be a magnet for advanced infrastructure. With increased bandwidth in the community, new business opportunities can develop. Together, the E-rate and DLT will help improve tribal access to the information superhighway.

RUS Recommendations

There are no simple solutions to expanding service. But the FCC can take several steps to

make service improvements to tribal areas easier.

(1) To reduce the barriers to providing modern telecommunications service to tribal nations, the FCC must expeditiously address the rulemakings that implement the Telecommunications Act but are vague on issues that relate to Tribal Authority and service on reservations. In most states, the Public Utilities Commission does not regulate service on Indian reservations and other state and Federal laws may not apply. In most instances in which FCC regulations state, "...the State shall...", it is unclear how this language applies on reservations. Without the necessary clarifications, ILECs and private lenders are reluctant to make the investments necessary to provide modern, affordable telecommunications services.

(2) Right-of-way easements have been extremely difficult to obtain thereby resulting in delays and increased construction costs. Better coordination initiatives between the Bureau of Land Management, Bureau of Indian Affairs, U.S. Forest Service and RUS may be able to identify methods to alleviate these problems. Other issues influenced by these same agencies and others in the Government are environmental reviews and mitigation. Direct buried telecommunications plant is relatively benign to the environment; however, all too often, inordinate effort and expense must be expended to satisfy multiple state and federal the various Agency requirements.

(3) The carrier of last resort provisions of the Telecommunications Act of 1996 must be implemented in a way that works in tribal jurisdictions. Under the Telecommunications Act of 1996, no one who wants to purchase telecommunications service should be denied.

(4) The successful implementation of universal service support mechanisms for rural and non-rural LECs is ^{to} vital service in Native American communities. Universal service rules must not cap support particularly when rural exchanges are acquired and must provide predictable specific and sufficient support to a carrier providing new service to Native American customers.

(5) Lifeline support should be enhanced for tribal communities. Poverty is one of the greatest impediments to service in tribal communities. State matching requirements for lifeline assistance should be waived for tribal service. The RUS supports the recent lifeline waiver petitions Gila River and others.

(6) Spectrum in rural areas should be made available to provide workable broadband services in rural and remote communities.

(7) The commission ^{Should} experiment with solutions for communities with out service, such as allowing "in kind" universal service contributions, the value of which could be deducted from universal service assessments, buy downs of high cost infrastructure and support for connection charges.

The RUS is extremely proud of its Native American borrowers. They are achieving what many had thought impossible. The secret to their success is commitment and tribal support. They acknowledged and faced the difficult realities of providing high-cost service. They understand their customers.

In addition, the 60 RUS borrowers serving tribal communities have close relations with their tribal customers and are providing quality service at affordable rates.

Closing the gaps in service in Native American communities will take a concerted and coordinated effort. The Federal government has a unique responsibility in this area. RUS is proud of its efforts but is limited by the loan only nature of its basic telecommunications financial assistance programs. We welcome the opportunity to leverage our loan resources and technical expertise with other federal investments and universal service support. We also encourage a broader approach to utilities development. Many of the phoneless Native American communities lack adequate electric, sewer and water services. Efficiencies can be achieved by a coordinated approach that bring together multiple federal, private, tribal and State resources.

I thank the Commission for the opportunity to participate in today's proceedings and congratulate you for your dedication and commitment to improving service to Native Americans. The RUS will assist the Commission in any way possible to help our first citizens succeed in the information age.

Thank you.